METHODS AND APPARATUS FOR REESTABLISHING A DATA CONNECTION WITH A WIRELESS COMMUNICATION NETWORK

ABSTRACT

5 Methods and apparatus for use in reestablishing a data connection with a wireless communication network are described. Initially, a wireless communication device maintains a data connection with a wireless communication network. During an out-of-coverage condition with the network, the wireless device is powered off. This causes the wireless device to reset its parameters associated with the data connection, but the wireless network

10 will fail to disconnect since the wireless device is out-of-coverage. After being powered back on and regaining network coverage, the wireless device transmits a message to the network which causes one or more network parameters associated with the data connection to be reset. Subsequently, the wireless device transmits one or more additional messages to the network for reestablishing the data connection. In the preferred embodiment, the data

15 connection is a Packet Data Protocol (PDP) context with a General Packet Radio Service (GPRS) attachment, the message is a disconnect frame, and the one or more additional messages include a General Packet Radio Service (GPRS) attach request. Advantageously, a data connection is substantially seamlessly maintained for the wireless device despite network connection complexities.